

Removal Action Cost Analysis  
Potlatch/St. Joe Riverbank Excavation  
Avery Landing Site, Avery, Idaho

| Direct Capital Costs   |          |      |           |                  | Reference        |
|--|----------|------|-----------|------------------|------------------|
| Item Description   | Quantity | Unit | Cost/Unit | Cost             |                  |
| Excavation of Overburden   | 306      | c.y. | \$2.52    | \$770            | 31 23 16 1030    |
| Excavation of Contaminated Soil                                    | 806      | c.y. | \$3.52    | \$2,836          | 31 23 16 1030    |
| Material Handling  | 1,111    | c.y. | \$2.64    | \$2,933          | 31 23 23.20 0014 |
| Disposal of Contaminated Soil                                      | 1,104    | ton  | \$20      | \$22,072         | Vendor Quote     |
| Transportation of Contaminated Soil                                | 1,104    | ton  | \$24.50   | \$27,038         | Vendor Quote     |
| Purchase & transport of additional fill                            | 806      | c.y. | \$7.00    | \$5,639          | Vendor Quote     |
| Material Handling  | 1,111    | c.y. | \$2.64    | \$2,933          | 31 23 23.20 0014 |
| Soil Placement and Compaction                                      | 1,111    | c.y. | \$0.43    | \$478            | 31 23 23.23 5000 |
| Seeding  | 0.03     | acre | \$2,022   | \$70             | Vendor Quote     |
| Fertilizer   | 0.03     | acre | \$595     | \$20             | Vendor Quote     |
| Silt Curtain   | 300      | l.f. | \$15      | \$4,500          | Estimate         |
| Excavate and Load Riprap   | 278      | c.y. | \$10      | \$2,778          | 31 23 23.15 6000 |
| Haul riprap to/from stockpile                                      | 278      | c.y. | \$2.64    | \$733            | 31 23 23.20 0014 |
| Crushed Stone for Bank Reconstruction                              | 92       | c.y. | \$30      | \$2,750          | Estimate         |
| Geotextile   | 1,800    | s.f. | \$0.40    | \$720            | Estimate         |
| Haul Riprap from off-site  | 278      | c.y. | \$65      | \$18,056         | 31 37 13.10 0100 |
| Place Riprap   | 278      | c.y. | \$25      | \$6,944          | 31 37 13.10 0370 |
| <b>Subtotal Direct Capital Costs (rounded to nearest \$10,000)</b> |          |      |           | <b>\$101,271</b> |                  |
| Indirect Capital Costs   |          |      |           |                  |                  |
| Engineering and Design (7%)  |          |      |           | \$7,000          |                  |
| Administration (5%)  |          |      |           | \$5,000          |                  |
| Legal Fees and License/Permit Costs (5%)                           |          |      |           | \$5,000          |                  |
| 3rd Party Construction Oversight (5%)                              |          |      |           | \$5,000          |                  |
| <b>Subtotal Indirect Capital Costs</b>                             |          |      |           | <b>\$22,000</b>  |                  |
| Subtotal Capital Costs   |          |      |           | \$123,271        |                  |
| Contingency Allowance (20%)  |          |      |           | \$25,000         |                  |
| <b>Total Alternative Cost (rounded to nearest \$10,000)</b>        |          |      |           | <b>\$150,000</b> |                  |

Notes:

Assumes excavation is 150 ft long, 10 feet wide, 20 feet deep. Avg

Riprap volume = 10'X5'X150'

Note: Mobilization, Demobilization, operation of the groundwater treatment plant, crew per diem and lodging not included.

depth to contaminated soil = 5.5 ft. BGS.

Removal Action Cost Analysis  
Potlatch/FHWA Property Line Excavation  
Avery Landing Site, Avery, Idaho

| Direct Capital Costs   |          |      |           |                  | Reference        |
|--|----------|------|-----------|------------------|------------------|
| Item Description   | Quantity | Unit | Cost/Unit | Cost             |                  |
| Excavation of Overburden   | 4,277    | c.y. | \$2.52    | \$10,777         | 31 23 16 1030    |
| Excavation of Contaminated Soil                                    | 5,797    | c.y. | \$3.52    | \$20,407         | 31 23 16 1030    |
| Material Handling  | 10,074   | c.y. | \$2.64    | \$26,596         | 31 23 23.20 0014 |
| Disposal of Contaminated Soil                                      | 7,942    | ton  | \$20      | \$158,846        | Vendor Quote     |
| Transportation of Contaminated Soil                                | 7,942    | ton  | \$24.50   | \$194,587        | Vendor Quote     |
| Purchase & transport of additional fill                            | 5,797    | c.y. | \$7.00    | \$40,581         | Vendor Quote     |
| Material Handling  | 10,074   | c.y. | \$2.64    | \$26,596         | 31 23 23.20 0014 |
| Geotextile   | 12,259   | s.f. | \$0.40    | \$4,904          | Estimate         |
| Soil Placement and Compaction                                      | 10,074   | c.y. | \$0.43    | \$4,332          | 31 23 23.23 5000 |
| Seeding  | 0.55     | acre | \$2,022   | \$1,105          | Vendor Quote     |
| Fertilizer   | 0.55     | acre | \$595     | \$325            | Vendor Quote     |
| <b>Subtotal Direct Capital Costs (rounded to nearest \$10,000)</b> |          |      |           | <b>\$489,055</b> |                  |
| Indirect Capital Costs   |          |      |           |                  |                  |
| Engineering and Design (7%)  |          |      |           | \$34,000         |                  |
| Administration (5%)  |          |      |           | \$24,000         |                  |
| Legal Fees and License/Permit Costs (5%)                           |          |      |           | \$24,000         |                  |
| 3rd Party Construction Oversight (5%)                              |          |      |           | \$24,000         |                  |
| <b>Subtotal Indirect Capital Costs</b>                             |          |      |           | <b>\$106,000</b> |                  |
| Subtotal Capital Costs   |          |      |           | \$595,055        |                  |
| Contingency Allowance (20%)  |          |      |           | \$119,000        |                  |
| <b>Total Alternative Cost (rounded to nearest \$10,000)</b>        |          |      |           | <b>\$710,000</b> |                  |

Note: Mobilization, Demobilization, operation of the groundwater treatment plant, crew per diem and lodging not included.

**Calculations:**  
Property Border Length: 340 ft  
Excavation Depth: 20 ft  
Excavation Base Width: 10 ft  
Side Slope: 1.5 :1 (H:V) (on each side)  
Total Excavation Volume: 272,000 cf  
or 10,074 cy

Average Depth to Contamination: 5.5 ft  
Contaminated Soil Volume: 156,528 cf  
5,797 cy

Overburden Volume: 115,473 cf  
or 4,277 cy

Contaminated Soil Volume: 156,528 cf  
or 5,797 cy

36.05551

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Removal Action Cost Analysis  
Potlatch/Bentcik Property Line Excavation  
Avery Landing Site, Avery, Idaho

| Direct Capital Costs   |          |      |           |                  | Reference        |
|--|----------|------|-----------|------------------|------------------|
| Item Description   | Quantity | Unit | Cost/Unit | Cost             |                  |
| Excavation of Overburden   | 1,021    | c.y. | \$2.52    | \$2,574          | 31 23 16 1030    |
| Excavation of Contaminated Soil                                    | 5,553    | c.y. | \$3.52    | \$19,545         | 31 23 16 1030    |
| Material Handling  | 6,574    | c.y. | \$2.64    | \$17,356         | 31 23 23.20 0014 |
| Disposal of Contaminated Soil                                      | 7,607    | ton  | \$20      | \$152,142        | Vendor Quote     |
| Transportation of Contaminated Soil                                | 7,607    | ton  | \$24.50   | \$186,374        | Vendor Quote     |
| Purchase & transport of additional fill                            | 5,553    | c.y. | \$7.00    | \$38,868         | Vendor Quote     |
| Material Handling  | 6,574    | c.y. | \$2.64    | \$17,356         | 31 23 23.20 0014 |
| Geotextile   | 12,780   | s.f. | \$0.40    | \$5,112          | Estimate         |
| Soil Placement and Compaction                                      | 6,574    | c.y. | \$0.43    | \$2,827          | 31 23 23.23 5000 |
| Seeding  | 0.57     | acre | \$2,022   | \$1,154          | Vendor Quote     |
| Fertilizer   | 0.57     | acre | \$595     | \$339            | Vendor Quote     |
| <b>Subtotal Direct Capital Costs (rounded to nearest \$10,000)</b> |          |      |           | <b>\$443,647</b> |                  |
| Indirect Capital Costs   |          |      |           |                  |                  |
| Engineering and Design (7%)  |          |      |           | \$31,000         |                  |
| Administration (5%)  |          |      |           | \$22,000         |                  |
| Legal Fees and License/Permit Costs (5%)                           |          |      |           | \$22,000         |                  |
| 3rd Party Construction Oversight (5%)                              |          |      |           | \$22,000         |                  |
| <b>Subtotal Indirect Capital Costs</b>                             |          |      |           | <b>\$97,000</b>  |                  |
| Subtotal Capital Costs   |          |      |           | \$540,647        |                  |
| Contingency Allowance (20%)  |          |      |           | \$108,000        |                  |
| <b>Total Alternative Cost (rounded to nearest \$10,000)</b>        |          |      |           | <b>\$650,000</b> |                  |

Note: Mobilization, Demobilization, operation of the groundwater treatment plant, crew per diem and lodging not included.

**Calculations:**

|                                 |              |               |
|---------------------------------|--------------|---------------|
| Property Border Length:         | 355 ft       |               |
| Excavation Depth:               | 20 ft        |               |
| Excavation Base Width:          | 10 ft        |               |
| Side Slope:                     | 1.5 :1 (H:V) | (on one side) |
| Average depth to Contamination: | 5.5 ft       |               |
| Total Excavation Volume:        | 177,500 cf   |               |
|                                 | or           | 6,574 cy      |
| Overburden Volume:              | 27,579 cf    |               |
|                                 | or           | 1,021 cy      |
| Contaminated Soil Volume:       | 149,921 cf   |               |
|                                 | or           | 5,553 cy      |

